

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,007	04/20/2001	Gregory Michael Orme	GRIHAB P09AU	9400

7590 08/16/2004  
Davis & Bujold  
Fourth Floor  
500 North Commercial Street  
Manchester, NH 03101-1151

EXAMINER

SHIFERAW, ELENI A

ART UNIT	PAPER NUMBER
----------	--------------

2136

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/830,007

Applicant(s)

ORME, GREGORY MICHAEL

Examiner

Eleni A Shiferaw

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04202001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/5/2001, 4/20/2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 13-24 are presented for examination.
2. The examiner considers the preliminary amendment filed on 04/20/2001.

***Specification***

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

**Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR  
DEVELOPMENT.

(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A  
COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program  
listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables  
having more than 50 pages of text are permitted to be submitted on compact  
discs.) or

REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a).

"Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi (Pub. No.: U.S. 2003/0137994 A1).

6. As per claim 13, Kikuchi teaches a method of compressing data including the steps of providing a first package of data (Page 1 par. 0002),

ordering the package of data into a plurality of groups of data comprising a plurality of characters (Fig. 3A, 3B, and 4B),

identifying predetermined patterns of characters from the plurality of patterns of characters (Page 4 par. 0063),

storing the location of each predetermined pattern of characters in memory (Page 1 par. 0020),

performing a further mathematical operation on the plurality of patterns of characters to produce a further plurality of patterns of characters (Page 4 par. [0071-0072]),

identifying further predetermined patterns of characters from the further plurality of patterns of characters (Page 4 par. [0072-0073]),

storing the location of each further predetermined pattern of characters in memory (Page 1 par. 0020),

processing each mathematical operation performed with the location of stored predetermined patterns and further predetermined patterns and producing a second package of data of a reduced number of characters which second package of data includes the number and type of mathematical operations performed (Page 4 par [0067-0072]),

the location of stored predetermined patterns and further predetermined patterns and after which mathematical operation then occurred, whereby the first package of data is retrievable from the second package of data (Abstract).

7. As per claim 14, Kikuchi teaches the method, further comprising the step of ordering the first package of data into a plurality of groups of data comprising a plurality of numbers (Page 4 par. [0069-0072], Fig. 3A, 3B, and 3C).

8. As per claim 15, Kikuchi teaches the method, further comprising the step of representing each predetermined pattern by a symbol of reduced number of characters (Page 4 par. 0073).

9. As per claim 16, Kikuchi teaches the method, further comprising the step of removing each predetermined pattern of numbers from the plurality of patterns of numbers and storing each predetermined pattern of numbers as a symbol with an associated address and associated number representing the number of mathematical operations that occurred prior to the predetermined pattern of numbers being removed (Page 1 par. 0020, Fig. 3A, 3B, and 3C).

10. As per claim 17, Kikuchi teaches the method, further comprising the step of inserting a symbol representing a particular predetermined pattern in a group of data having a predetermined pattern of characters (Page 1 par. 0015, page 4 par. 0063).

11. As per claim 18, Kikuchi teaches the method, further comprising the step of producing predetermined patterns of numbers after each mathematical operation are stored in a look-up

Art Unit: 2136

table whereby they can be retrieved in reverse order of entry into the look-up table (Page 4 par. 0070).

12. As per claim 19, Kikuchi teaches the method, wherein the mathematical operation further comprises the step of subtracting a predetermined number from each group of characters (Page 4 par. 0067).

13. As per claim 20, Kikuchi teaches the method, wherein the mathematical operation further comprises the step of comparing each group of numbers with a predetermined number and producing a number that is the difference (Page 3 par. 0058-page 4 par. 0059).

14. As per claim 21, Kikuchi teaches the method, wherein the further mathematical operation further comprises the step of sorting each group of numbers after predetermined patterns of number have been stored, the sorting being in accordance with predetermined criterion (Page 1 par. 0020).

15. As per claim 22, Kikuchi teaches the method, wherein the further mathematical operation further comprises shuffling groups of characters in accordance with a predetermined transformation (Fig. 3A, 3B, and 3C).

16. As per claim 23, Kikuchi teaches the method, wherein the mathematical operation further comprises a transformation step whereby characters at predetermined positions are grouped together (Page 3 par. 0058-page 4 par. 0059).



Art Unit: 2136

17. Claim 24 is rejected under 35 U.S.C. 102(e) as being anticipated by York (Patent No.: US 6,711,709 B1).

18. As per claim 24, York teaches a method of encrypting data including the step of providing a package of data (Abstract, Fig. 5),

performing a mathematical operation on the package of data to create groups of data comprising a plurality of patterns of characters (Col. 5 lines 65-col. Col. 6 lines 67, Fig. 6 A-F),

identifying predetermined patterns of characters from the plurality of patterns of characters (Col. 8 lines 37-64),

storing in memory the mathematical operation performed and the location of each predetermined pattern of characters (Col. 4 lines 30-67),

repeating the steps a predetermined number of times to produce an encrypted package of data (Col. 5 lines 35-67).

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni A Shiferaw whose telephone number is 703-305-0326. The examiner can normally be reached on Mon-Fri 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2136

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eleni Shiferaw  
Art Unit 2136

*E. L. Moise*  
EMMANUEL L. MOISE  
PRIMARY EXAMINER  
*A/U 2136*